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"I'm a Strong Independent Black Woman": The Cost of Strong Black Woman Schema Endorsement

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**“I’M A STRONG INDEPENDENT BLACK WOMAN”:
THE COST OF STRONG BLACK
WOMAN SCHEMA ENDORSEMENT**

by

STEPHANIE CASTELIN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of Sciences
and in the Burnett Honors College
at the University of Central Florida
Orlando, Florida.

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ABSTRACT

The Strong Black Woman Schema (SBWS) is a cultural expectation placed on black women to unfailingly display signs of strength and caretaker qualities, while suppressing their emotions. The present study aimed to examine the relationship between the SBWS and psychological distress, suicidal behaviors, and resilience. Researchers expected to find a positive relationship between the SBWS and psychological distress, a positive relationship between the SBWS and resilience, and an undefined relationship between the SBWS and suicidal behaviors. The study also examined the potential moderating effects of the SBWS and resilience on the existing psychological distress-suicidal behaviors relationship. Lastly, the study examined how socioeconomic status moderates the relationship between the SBWS and psychological distress. It was expected that the SBWS and resilience would weaken the relationship between psychological distress and suicidal behaviors; higher socioeconomic status would weaken the relationship between the SBWS and psychological distress. Researchers recruited 177 black women to take a 30-minute survey. A bivariate correlation analysis showed that the SBWS shares a positive relationship with psychological distress, including depression, anxiety, and stress, and suicidal behaviors. However, resilience was not associated with the SBWS. Resilience was found to moderate the psychological distress-suicidal behaviors relationship, while the SBWS did not. Socioeconomic status did not moderate the relationship between the SBWS and psychological distress. The findings of this study bear important clinical and community implications. By determining the harmful effects of the SBWS, further research can be conducted on how black woman, mental health professionals, and community advocates can mitigate its effects.

DEDICATION

I would like to dedicate this thesis to all the amazing black women who participated in this study and the strong black women that carry the weight of the world. Let your voices be heard.

ACKNOWLEDGEMENTS

First, I would like to thank God for carrying me through this amazing journey. I would also like to thank my amazing friends and family that have supported me and been patient with me through and through. I'd like to thank Dr. White, my faculty mentor for not only thoroughly advising me through this process but also encouraging me to always strive for more. Thank you Dr. Shillingford for your careful revisions and time that you've dedicated to helping me with this project. Lastly, but certainly not least, thank you to all of my McNair family for your support, encouragement, and gentle push. I truly wouldn't have been able to do this without all of you.

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INTRODUCTION

The Strong Black Woman Schema (SBWS), sometimes referred to as the Strong Black Woman Race-Gender Schema, is an emerging area of research that has raised important questions across a variety of fields. Much of the research on this construct has been qualitative and sought to define the SBWS. The SBWS refers to the cultural expectation for black women to exemplify traits of extreme emotional strength, determination, and caretaking abilities, while facing adversity (Abrams, Maxwell, Pope, & Belgrave, 2014; Jerald, Ward, Moss, Thomas, & Fletcher, 2017). Other factors of the SBWS include themes of independence, matriarchal leadership, hard work, spirituality, and personal/ethnic pride (Abrams et al., 2014; Nelson, Cardemil, & Adeoye, 2016).

Though the concept of the SBWS is relatively new, this representation of black women in America has been seen since slavery (Collins, 2000). Similar key characteristics have been seen within traditional stereotypes of black women. These stereotypes have often been used to control the image of black women (Collins, 2000). Two historical stereotypes, in particular, serve as the basis for an assessment used to measure endorsement of the SBWS (Watson & Hunter, 2015). The first is the mammy, who is described as a large, asexual black woman whose primary role is to serve and tend to the needs of those around her (Collins, 2000). The second is the superwoman who has a strong desire to be successful and does not show weakness (Wallace, 1979).

Researchers from many different fields- including sociology, public health, and psychology- have noted that black women face present-day expectations to exemplify these traits (Abrams et al., 2014). From this, similar concepts have emerged to describe the cultural

expectations placed on and endorsed by black women today. The Sisterella complex describes a black woman who is a hard worker and prioritizes the needs of others while she “suffers silently” (Beauboeuf-Lafontant, 2007; Jones & Shorter-Gooden, 2003). Another is the Sojourner Truth Syndrome (STS), which refers to the expectation for black women to adapt to the many challenges they face. This is due to their unique position at the intersection of race, gender, and often, class (Abrams et al., 2014; Lekan, 2009). Health disparities that exist between black women and every other racial class are attributed to the STS (Lekan, 2009). The superwoman schema developed by Woods-Giscombe (2010) is identical to the SBW schema. Lastly, a construct that is similar to the SBW schema, but is not exclusive to women, is John Henryism. John Henryism is a high-effort coping style that is used to deal with the psychosocial threats, such as financial difficulties or discrimination, that African Americans often experience (James, 1994).

However, the SBW schema is not simply a theoretical concept. It has been shown to be ingrained into black culture (Etowa, Beagan, Eghan, & Bernard, 2017) and endorsed by many black women in the media (Black & Peacock, 2011; Jerald et al., 2017; Stanton, Jerald, Ward, & Avery, 2017). Specifically, researchers have found that black adolescents who view black-oriented television programs are more likely to endorse the SBWS than those that don’t (Anyiwo, Ward, Day Fletcher, & Rowley, 2018). Racial and gender stereotyping, and implicit and explicit socialization also contribute to the endorsement of the SBWS by many black women (Woods-Giscombé, 2010). In one study that examined black women’s perceptions of the strong black woman schema, most of the black women were found to identify with the SBWS to some degree (Nelson et al., 2016).

Thus, with the prominent indoctrination and pervasiveness of the SBW construct in black culture, the SBWS affects a substantial portion of black women (Nelson et al., 2016). With the SBWS affecting such a large demographic, researchers have questioned the practical ramifications of endorsing the SBWS. Black women have expressed that the SBWS has contributed to their own survival and the survival of their communities and families (Woods-Giscombé, 2010). They attribute their sense of resilience, though obligatory, and a positive self-concept to the SBWS (Abrams et al., 2014). Black women have been characterized as the “mules of the world” (Hurston, 1937, p.44) because they are typically subjected to excessive adversity in regard to race, gender, and class (Lekan, 2009; Woods-Giscombé & Lobel, 2008). That is why, to many women, the SBWS is a necessary coping mechanism used to adapt to the similar yet unique struggles that black women face (Abrams et al., 2014; Etowa et al., 2017; Hurston, 1937; Nelson et al., 2016; Woods-Giscombé, 2010).

Still, many women also acknowledge the effects that the SBWS has on their mental health. Researchers have found that the degree of self-sacrifice, self-silence, and self-reliance normalized under the SBWS may produce psychological distress and mental illness (Beauboeuf-Lafontant, 2007; Black & Peacock, 2011). Black women have attested to this as they’ve stated that the expectation to take on many responsibilities independently, while maintaining an image of strength, is stressful and isolating (West, Donovan, & Daniel, 2016). The SBWS demands that black women cope with many stressful and traumatizing events without seeking help (Nelson et al., 2016; Watson & Hunter, 2015; West et al., 2016). They feel that their extreme level of strength causes others to see them as unhuman and hence not treat them as such. They are forced to be the backbone and workhorses of entire communities (Etowa et al., 2017). Due to extreme

self-regulation and self-silencing, black women have identified poor eating, sleep, self-care, and smoking as effects of the SBWS (Woods-Giscombé, 2010). A study conducted by Harrington and colleagues found that the SBWS predicts self-silencing, emotion regulation difficulties, and eating for psychological reasons among African American trauma survivors, which led to binge eating (Harrington, Crowther, & Shipherd, 2010). Also, while the SBWS helps black women adapt to the many roles required of her (Abrams et al., 2014), it also produces tensions- “(1) to be durable yet unable to engage in behaviors to preserve durability (2) to be equal yet oppressed (3) to follow traditional norms of “femininity” yet be strong” (Watson & Hunter, 2016, p. 434).

Resilience

In its most basic definition, resilience is the ability to bounce back from and adapt to stress (Smith et al., 2008). More specifically though, resilience has been defined in many different ways, depending on the theoretical orientation of the definition (Hu, Zhang, & Wang, 2015). Trait resilience states that resilience is a stagnant personality characteristic, outcome-driven resilience states that resilience is a functional response, and a process-oriented approach states that resilience is a dynamic process (Hu et al., 2015). In this study, researchers will use a trait-oriented approach to define resilience. The more traits an individual has that allows them to adapt to stress, the more resilient they are (Campbell-Sills & Stein, 2007). Researchers chose trait resilience due to its consistency with the personality-oriented nature of the SBWS.

Resilience has shown to be a desirable trait as it is linked to positive mental health and shares a negative relationship with mental disorders (Hu et al., 2015). Resilience is able to assist in the recovery of mental issues, prevent mental issues, and promote mental health (Davydov,

Stewart, Ritchie, & Chaudieu, 2010). In this study, we will regard resilience as being a protective factor against mental health issues.

Some personality factors that make up resilience are personal competence, tenacity, the strengthening effect of stress, spiritual influences, and a sense of control (Campbell-Sills & Stein, 2007). The SBWS seems to embody many of the same characteristics. Women have described a SBW as someone who displays multiple forms of strength, is spiritually anchored, and has a positive self-concept (Abrams et al., 2014). SBW are also thought to have resilience (Abrams et al., 2014), though this has not been empirically confirmed. That is why, in this current study, researchers sought to explore whether a potential relationship exists between the SBWS and trait resilience. It is hypothesized that the SBWS will show a positive association with trait resilience.

As mentioned earlier, resilience does serve as a protective factor against mental illness. Moreover, psychological distress and mental illness are known risk factors for suicide (Botega, Barros, Oliveira, Dalgarrondo, & Marín-León, 2005; Kisch, Leino, & Silverman, 2005; Utsey, Hook, & Stanard, 2007). The buffering hypothesis of resilience states that resilience (and its sub-dimensions) acts as a separate factor to reduce the effects of risk factors on suicidality (Johnson, Wood, Gooding, Taylor, & Tarrier, 2011). Thus, researchers question if resilience serves as a moderating factor in the psychological distress-suicidal behaviors relationship. A previous study found that resiliency moderates the relationship between depression and suicidal ideation in farmers (McLaren & Challis, 2009). However, the study did not measure trait resilience but rather resilience factors (sense of belonging and social support) (McLaren & Challis, 2009). Also, this association has not been assessed specifically within college-aged black women.

Researchers have found religiosity, social support, and black consciousness to be protective factors against suicidal behaviors in African Americans (Utsey et al., 2007). Researchers have also found other related constructs, such as social support, to be determinant in the relationship between risk factors and suicidal behaviors (Kaslow et al., 1998). However, as far as published literature goes, trait resilience has not been examined. Hence, in this study, researchers also examined the moderating effects of resilience on the relationship between psychological distress and suicidal behaviors. It was hypothesized that high resilience will weaken the relationship between psychological distress and suicidal behaviors.

Psychological Distress

Psychological distress is a broad term that can be defined as “the unique, discomfoting, emotional state experienced by an individual in response to a specific stressor or demand that results in harm, either temporary or permanent, to the person” (Ridner, 2004, p. 539). For the purpose of this study, psychological distress will be operationalized as a combination of anxiety, depression and stress.

Stress

Chronic stress is a sustained, psychophysiological response to environmental stressors (N.A. Piotrowski & Hollar, 2013). The main symptoms of stress include “tension, irritability, and the tendency to overreact to stressful events” (Antony, Bieling, Cox, Enns, & Swinson, 1998, p. 77). Studies have shown that black women experience a multidimensional model of stress (Woods-Giscombé & Lobel, 2008). This means that one must consider gender and race related stress, in addition to general stress, in black women’s global stress model. Thus, with the

SBWS being a cultural demand placed on black women, researchers suspected that the SBWS could be considered a stressor that contributes to the psychological distress that black women experience.

Depression

Some characteristic symptoms of depression are a depressed mood, lack of interest in nearly all activities, and, weight/appetite change (Nancy A. Piotrowski, 2013). Non-clinical depression is found to affect quality of life as it reaps economic disadvantages (Cuijpers & Smit, 2008), negatively affects work performance (Martin, Blum, Beach, & Roman, 1996), puts individuals at risk for developing major depressive disorder (Cuijpers & Smit, 2008), and poses a risk of suicide (Nancy A. Piotrowski, 2013).

A study done by Williams and colleagues (2007) sought to find how depression differs between black and white Americans. They found that though the lifetime prevalence of major depressive disorder is higher in whites than in blacks, blacks experience depression more chronically. In addition, depression tends to be more debilitating in blacks than whites. Depression among African Americans may be compounded by anxiety over unfulfilled roles and responsibilities hindered by psychological dysfunction. Finally, African Americans are also less likely to seek out psychological help when needed (Williams et al., 2007). Thus, though overall depression is more common in white Americans, it appears to be more impairing and hazardous in black Americans (Williams et al., 2007). This may be even worse for black women, as they experience depression twice as much as black men (Williams et al., 2007).

Anxiety

Broadly, anxiety is characterized as excessive and/or persistent worry and fear that can impair daily functioning or cause negative feelings (Nancy A. Piotrowski, 2013). Piotrowski further indicated that anxiety can manifest both physically and cognitively with some symptoms being, restlessness, an inability to concentrate, and muscle aches. Anxiety can lead to serious health issues including gastrointestinal disorders, respiratory disorders, and heart disease (Health, 2008). Anxiety can also cause social and occupational impairment (Nancy A. Piotrowski, 2013).

Though anxiety is a lot less prevalent in black men and women than whites, anxiety leads to more severe symptoms and functional impairment in blacks than whites (Himle, Baser, Taylor, Campbell, & Jackson, 2009). Black people tend to somaticize mental illness, namely anxiety and depression, more than whites and express less mood symptoms (Brown, Schulberg, & Madonia, 1996). Researchers suspected that this may have something to do with the SBWS since there is an expectation for black women to hide their emotions (Watson & Hunter, 2015).

Considering the different rates and manifestation of psychological distress between blacks and whites, one might consider how cultural factors, such as the SBWS, relate to psychological distress. There are very few quantitative studies that have examined the relationship between the SBWS and psychological distress. A study done in 2015 found a positive relationship between SBWS endorsement and psychological distress, namely depression and anxiety (Watson & Hunter, 2015). Another study found that moderate and high levels of SBWS endorsement strengthens the existing relationship between stress and mental health (Donovan & West, 2015). However, this relationship is not concrete. Another study found no

significant relationship between the SBWS and depression (Etowa et al., 2017). However, this may be due to the fact that there was not much variation in SBWS endorsement levels within the participants. Also, with the SBWS still emerging, there is no one consensus of the definition of the SBWS. The study conducted by Etowa and colleagues (2017) used a different assessment to measure the SBWS than the other studies. Therefore, in this study, researchers sought to clarify the relationship between the SBWS and psychological distress. Researchers hypothesized that there would be a positive relationship between the SBWS and psychological distress.

Suicidal Behaviors

Past suicidal behaviors can be broadly defined as any past suicidal ideation, threats, or attempts (Cotton, Peters, & Range, 1995). Suicidal ideation is defined as having thoughts about taking one's own life and possibly, a plan to do so. More comprehensive definitions include thoughts about other's reactions to one's death and other outcomes of one's own suicide (Reynolds, 1991). Though suicidal ideation simply refers to the thought of suicide, it is a known risk factor for later attempting suicide, and thus has important clinical implications (Nock et al., 2008). A suicide attempt is when someone hurts themselves with the intention of dying, but is not successful (Center for Disease Control, 2018). About 4 percent of attempted suicides end in death and even more still result in serious injury (American Association of Suicidology, 2016). Also, both suicide attempts and suicidal ideation are associated with other mental disorders, such as anxiety and depression. (Beck, Steer, Beck, & Newman, 1993; Nock et al., 2008).

Black women have the lowest rate of suicide deaths when compared to all other racial groups and genders (Jiang, Mitran, Miniño, & Ni, 2015; Spates, 2016). Many black women have

associated the low rate of suicide in black women to the strength that black women are made to adopt (Spates, 2016). On another hand, black women actually experience more ideation and go through with more suicide attempts than black men (Joe, Baser, Breeden, Neighbors, & Jackson, 2006). Because of the disproportionate rates of suicidal behaviors between black women and all other demographics, the researchers were interested in investigating the cultural factors, in this case the SBWS, that may be the reason for these differences.

Moreover, mood and anxiety disorders, including depression, are known risk factors for suicide (Suicide Prevention Resource Center, 2013). Race moderates the relationship between depression and suicidal ideation (Lamis & Lester, 2012). The positive relationship between depression and suicidal ideation is less pronounced in African Americans than European Americans (Lamis & Lester, 2012). Because black women show strength in many areas of their lives, they may also show strength when it comes to depression and do not consider suicide (Spates, 2016). In addition to the aspect of strength, the need for obligation may also be a preventative factor for black women considering suicide. Black women have said “I couldn’t kill myself because my family needs me” (Spates, 2016, p. 111). Due to the nature of the SBWS and the SBW’s feeling of obligation to take care of those around them, it is possible that endorsement of the SBWS is negatively related to suicidal behaviors.

On the other hand, since the SBWS is positively related to depression (Etowa et al., 2017; Watson & Hunter, 2015) and depression is positively linked to suicidal behaviors (Beck et al., 1993; Nock et al., 2008), one could expect that the SBWS is also positively associated with suicidal behaviors. Black women actually attribute their rate of suicidal ideation to stressors that come from being at the intersection of a disadvantaged race and gender (Perry, Pullen, & Oser,

2012). As the SBWS is viewed as a controlling expectation for many black women (Abrams et al., 2014), the SBWS may very well be one of these stressors.

The relationship between the SBWS and suicidal behaviors has not yet been examined. Investigating this relationship has important clinical implications, as if the SBWS decreases suicidal behaviors, then that schema should be endorsed in therapy and promoted in the socialization of black girls. However, if it is found that endorsement of this schema increases suicidal behaviors, researchers may want to further investigate how communities can still promote “strength” in black women and girls without precipitating mental health issues.

In order to investigate the relationship between the SBWS and suicidal behaviors, suicidal behaviors served as an exploratory variable and researchers held no prediction about the directionality of the possible correlation between the SBWS and suicidal behaviors. The study also aimed to find if the SBWS counts as a factor that leads to the decreased association between psychological distress and suicidal behaviors in African Americans. Hence, in this study, researchers examined if the SBWS moderates the relationship between psychological distress and suicidal behaviors.

Socioeconomic Status

Socioeconomic status (SES) is most commonly defined as a combination of income, education, and occupation that is used to determine an individual’s social standing in society. SES is known to be a very important factor in an individual’s life as it has been linked to poor health outcomes (Adler & Ostrove, 1999; James, 1994), mental health outcomes (Lorant et al., 2003), and academic achievement (Sirin, 2005).

Since discovering the disadvantages that low SES has for many outcomes, researchers have engaged in efforts to identify factors that play into the relationship between SES and negative outcomes. People from lower SES groups have less access to resources to diminish stress and sources of stress, as well as fewer options for coping (Baum, Garofalo, & Yali, 1999). In addition to lacking positive resources they are also exposed to significantly more stressors, such as discrimination (Perry, Stevens-Watkins, & Oser, 2013), crime, and noise (Baum et al., 1999). Sociologists have found that a build-up of environmental stressors in low SES environments leads to chronic stress (Evans, Brooks-Gunn, & Klebanov, 2011; Turner, Blair, & Lloyd, 1995). Even more specifically, stress is found to vary between SES groups within African Americans (Turner & Avison, 2003).

The SBWS has been described as being necessary in order to cope with stress and responsibilities that black women face (Etowa et al., 2017; Nelson et al., 2016). Connecting these two theories of thought, one might suspect that black women from a low SES, facing more stressors, may feel the need to endorse the SBWS. However, previous empirical research that have included income, education, and/or occupation as a part of their studies have not found a significant correlation between SES and endorsement of the SBWS (Donovan & West, 2015; Watson & Hunter, 2015).

Yet, it is possible that SES may still share a relationship with the SBWS and psychological distress. As mentioned earlier, John Henryism (JH) is a sustained high effort coping style that is characterized by extreme commitment, determination, and physical and mental strength (Bennett et al., 2004; James, 1994). From this, the John Henryism Hypothesis (JHH) speculates that those who engage in high JH coping while maintaining a low SES

(exposed to increased psychosocial stressors), may suffer from more negative health outcomes (James, 1994). The first study, conducted by James, to propose this hypothesis and test it found a minimal difference in hypertension and high blood pressure between SES groups, for those that engaged in low levels of JH coping. On the other hand, for those who engaged in high JH coping, low SES individuals had greater levels of hypertension and high blood pressure while high SES individuals had lower levels of hypertension and high blood pressure. Thus, JH coping may serve as a protective factor against negative health outcomes in high SES individuals while JH coping may serve as a risk factor for negative health outcomes in low SES individuals (James, 1994). Researchers have tried to explain this, suggesting that individuals with high SES are more likely to reap the rewards of JH coping, leading to increased well-being (Bronder, Speight, Witherspoon, & Thomas, 2014). On the other hand, individuals with low SES may not gain anything from JH coping, leading to distress (Wheaton, 1985). In accounting for psychological stress within the model, researchers found that it was in fact not simply psychological stress that results in higher rates of hypertension in low SES. It is rather the combination of psychological stress and the high-effort coping style that results in increased hypertension in low SES groups (James, 1994).

Thus, since the JH coping style is similar to the SBWS, researchers hypothesized that similar results will be found in this study. Researchers hypothesized that SES will moderate the relationship between SBWS endorsement and psychological distress. Researchers classified participants into groups of low/middle SES and middle/high SES since the original study examining the JHH only found significant differences between pronounced high SES and low SES (James, 1994). For those with low SBWS endorsement, psychological distress will not vary

significantly between the SES groups. For those with high SBWS endorsement, low SES individuals will experience significantly more psychological distress than high SES individuals. Thus, the relationship between SBWS endorsement and psychological distress will be more pronounced in lower SES groups than higher SES groups.

Overall, in this study, the researchers would like to contribute to the growing literature on the SBW schema and investigate the factors of endorsement and effects of the SBW schema. Specifically, the researchers aimed to investigate the relationship between the SBWS and resilience, depression, and suicidal ideation. Further moderation analyses were also conducted to examine if the SBWS and resilience moderate the relationship between depression and suicidal ideation. Lastly, researchers also examined whether SES moderates the relationship between SBWS endorsement and depression.

It is expected that the findings of this study will bear important clinical and general implications. The SBWS has been prevalent in society since slavery and continues to be endorsed by the majority of black women (Black & Peacock, 2011; Jerald et al., 2017; Nelson et al., 2016; Stanton et al., 2017). Thus, it is important that mental health professionals and the black community understands the potential risks and benefits of endorsing the SBWS. If the SBWS is found to be harmful to mental health, efforts within the black community should be made to modify how black girls are taught to be strong. Also, through this research, mental health professionals can begin to identify the SBWS as either a risk factor or protective factor against mental illness. Further research can be conducted on how black woman can combat or take advantage of the effects of the SBWS. As a result, professionals will gain insight on how to provide multiculturally competent therapy to black women that strongly endorse the SBWS.

METHOD

Participants

Researchers recruited 177 black women (any ethnicity or nationality) between the ages of 18 and 25. Researchers used Cohen's power primer to determine the necessary sample size of 177 to detect medium effects (Cohen, 1992). Participants were recruited from a college-student sample (N= 173) and a community sample (N= 2), with 2 participants that did not indicate a response. Participants were recruited after securing IRB approval through the University of Central Florida (see Appendix A). The community sample was recruited through black community organizations and social media posts, using a flyer (see Appendix B) and/or email (see Appendix C). The college-student sample was recruited through the University of Central Florida's psychology participant database, faculty members' courses, and social media. The average participant age was 20.81 ($SD=2.07$)

Measures

Strong Black Woman Schema Scale (SBWS Scale)

The superwoman and mammy subscales from the Stereotypic Roles for Black Women Scale (Thomas, Witherspoon, & Speight, 2004) was used to assess the strong black women schema. This scale will be referred to as the Strong Black Woman Schema (SBWS) scale, as it was referred to as the Strong Black Woman Race-Gender Schema by Watson & Hunter (2015). Together, it is a 16-item scale that uses a 5-point Likert scale. Items from the mammy scale include questions like, "I often put aside my own needs to help others". Items from the superwoman scale include questions like "Black women have to be strong to survive". Higher

scores on the SBWS scale indicate higher levels of SBWS endorsement. The average score for SBWS endorsement is 52.5 (Watson & Hunter, 2015). Original reported internal consistency scores for the SBWS scale have an internal consistency of .77 (Watson & Hunter, 2015). In this study, researchers found the overall SBWS scale to have a Cronbach's alpha of .79.

Socioeconomic Status (SES)

In this study, researchers used eligibility to receive federal assistance as an indicator of low SES. Specifically, socioeconomic status was based on the U.S Department of Agriculture's qualifications for free or reduced lunch under the Department of Education. These qualifications state that individuals at or below 185% of the national poverty level are eligible ("Child Nutrition Programs: Income Eligibility Guidelines," 2018). The poverty level is based on household size and income. Thus, the first question asked participants to identify their parents' annual household income. The second question asked participants for their household size. Participants that met the qualifications for free or reduced were classified as low/middle SES while participants that did not were classified as middle/high SES. Both free and reduced lunch eligible categories were classified as low-income. Using this method, researchers identified 21 participants as having low/middle SES and 50 participants as having middle/high SES. Researchers did not add a question assessing household size until midway in data collection, so the data had 106 missing responses for this measure of SES.

In addition to free and reduced lunch eligibility, researchers also used Pell Grant eligibility as a measure of SES. The Pell Grant is a national grant provided to college-students identified as low income through the Free Application for Federal Student Aid (FAFSA). Pell

Grant eligibility is determined by examining several factors of SES including both the student's and parents' income, assets, governmental assistance, household size, among other qualifying factors ("Federal Pell Grant Program," 2015). Thus, for the purpose of this study, students who received the Pell Grant were classified under the category of low/middle SES, while those who did not receive the grant were classified into the middle/high SES group. Pell Grant eligibility could only be used to assess socioeconomic status within the college student sample (N=163). Using this method, researchers identified 102 participants as having low/middle SES and 58 participants as having mid/high SES (17 missing).

Researchers ended up only using Pell Grant eligibility to measure SES due to the large college-sample and the variety of questions used to measure Pell-Grant eligibility. In addition, data collection began prior to adding the household size question to the survey so there are only 76 participants with an SES group (based on free/reduced lunch).

Connor-Davidson Resilience Scale 10 (CD-RISC 10)

The Connor-Davidson Resilience Scale 10 (CD-RISC 10) (Connor & Davidson, 2003) was used to measure resilience. It is a 25-item scale with a range of 0 to 100 that measures trait resilience. Each question has a 5-point range from 0- "not true at all" to 4- "true nearly all the time". Higher scores on the assessment indicate higher trait resilience. The assessment measures an individual's ability to adapt to "change, personal problems, illness, pressure, failure, and painful feelings" (Campbell-Sills & Stein, 2007, p. 1026). The CD-RISC is one of the most validated measure of resilience (Campbell-Sills & Stein, 2007). The measure shows a high internal consistency ($\alpha=.89$), validity ($p<.01$), and test-retest reliability. In this study, researchers

found a Cronbach's alpha of .90. Some items descriptions include "thinks of self as strong person" and "can handle unpleasant feelings". The average score in the United States general population is 80.7.

Depression, Anxiety, and Stress Scales 21 (DASS-21)

The Depression, Anxiety, and Stress Scales 21 (DASS-21) (Antony et al., 1998) was used to measure psychological distress. The 21-item scale measures the 3 axes of psychological distress- depression, anxiety, and stress. Researchers used the global scale score to measure psychological distress. It uses a 4-point rating scale and has a total range of 0 to 63. Higher scores indicate higher levels of psychological distress. Researchers used the DASS-21 as opposed to the original DASS scale due to its brevity and comparable psychometric properties. Sample questions include "I found it hard to wind down" to measure stress, "I felt that I had nothing to look forward to" to measure depression, and "I was aware of dryness of mouth" to measure anxiety. The Cronbach alpha levels for depression, anxiety, and stress were .89, .76, and .83, respectively. The internal consistency for the overall scale was .91. The average score on the DASS-21 within a non-clinical sample is 9.43 (Henry & Crawford, 2005).

Suicidal Behaviors Questionnaire Revised (SBQ-R)

The Suicidal Behaviors Questionnaire Revised (SBQ-R) (Osman et al., 2001) is a 4-item scale that measures 4 different dimensions of suicidality- lifetime suicidal ideation/attempts, recent suicidal ideation, threat of suicide attempt, and the likelihood of future suicidal behavior. Higher scores indicate increased levels of suicidal behavior. Total scores range from 3 to 18, with a suicide risk cutoff score of greater than or equal to 7 in the general population. The

measure has a sensitivity of 93% and a specificity of 95%. The measure had a Cronbach alpha level of .80. The average scores for non-suicidal undergraduates and suicidal undergraduates are 5.01 and 9.27, respectively.

Demographics Questionnaire

The demographics questionnaire was used to gather data related to participants' age, gender, college attendance, Pell grant eligibility, class standing, GPA, and ethnic background (e.g. Black American, Caribbean/Caribbean-American, African). This data was used to gather information about the sample and examine any potential differences between participants' scores.

Procedures

Before collecting data, the study went through IRB review and was approved (see Appendix A). Researchers also used open-access scales to conduct this study. The only scale that was not open-access was the CD-RISC. Thus, researchers obtained permission from the developers to use the CD-RISC scale. Once the study was approved and permissions were obtained, researchers used several methods to recruit participants to sign up for the study. The first form of recruitment was UCF's psychology SONA system, which provides course credit to students who participate in research studies. Participants were also recruited through faculty members' Webcourses classes for course credit. Moreover, participants were recruited through an email to UCF and community organizations. The organizations agreed to send out an approved recruitment email (see Appendix C) and/or flyer (see Appendix B) to their members registered on their emailing list. Lastly, participants were recruited through social media (i.e.

Facebook, Snapchat, and Instagram), using the recruitment flyer. Both the participants recruited through social media and the organizations volunteered freely to participate in the study.

Participants who signed up through SONA were redirected to Qualtrics, an online survey collection site. Participants recruited through Webcourses, email, or social media were given the direct link to the Qualtrics survey. Information was also be provided in the email on how to sign up through SONA, if applicable to the participant.

The study was conducted strictly online using Qualtrics survey software. Before beginning the survey, all the participants consented to participating in the study. Participants also answered questions that were used to validate that the participant met eligibility requirements (identify as a black woman and between the ages of 18 and 25). Participants that did not consent to be a part of the survey or meet the eligibility requirements were exited out of the survey. Participants then completed the surveys in order of the SBWS scale, the CD-RISC 25, the DASS 21, SBQ-R, then the demographics questionnaire (which contained the questions relating to SES). Finally, participants filled in the information necessary for them to receive SONA credit or course credit, if applicable.

RESULTS

Researchers went through several rounds of deletions to account for missing data. Within the Qualtrics system, researchers deleted participants that did not complete at least 2 measures. Researchers did not track the original total number of participants that partially filled out the survey (without completing at least 2 measures). After accounting for this, the original sample size was 187. In order to have an even sample size across all measures, researchers removed participants missing a significant amount of responses from the data (more than 3 questions per measure). This brought the sample size down to 177. Though researchers did achieve the sample size necessary to achieve power with medium effect sizes, many of the participants had a minimal amount of missing values. Researchers chose to use data imputation to fill the missing values as opposed to deleting the values in order to maintain power. Researchers also chose to use data imputation in order to achieve an equal sample size for each measure and analysis. Data imputation was deemed appropriate considering that each participant did not miss more than 3 questions from each measure. Researchers used data interpolation in order to fill in the missing values. Researchers did not use data interpolation to fill in categorical variables or single-item measures (i.e. SES).

SPSS statistical software was used to run the data analyses. The distribution of ethnicities was 100 African Americans, 50 Caribbean/Caribbean-Americans, 8 Afro-Latinas/Hispanic, 3 Africans, 12 Mixed Race, and 2 identifying as other (2 missing responses). An initial analysis showed that the SBWS is equally endorsed by different ethnic groups [$F(5, 169) = .42, p = .83$]. Within the college-student sample, there were 29 freshmen, 27 sophomores, 49 juniors, and 63

seniors (9 missing responses). Histogram plots also revealed that scores were normally distributed for the SBWS scale, CD-RISC, DASS-21 (and each of its subscales), and SBQ-R.

In order to find all the correlations using SPSS, researchers analyzed the data by creating a bivariate correlation matrix (see Table 1) between scores from the SBWS, resilience, psychological distress, suicidal behaviors, and GPA. Researchers used an alpha value of $\alpha=.05$ for all analyses. Researchers hypothesized that endorsement of the SBWS is positively related to psychological distress. The bivariate correlation analysis showed that the SBWS ($M= 58.99$, $SD= 8.26$) shares a positive association with psychological distress ($M= 21.32$, $SD= 11.88$; $r(175)= .57$, $p < .001$). The correlation matrix also showed that in addition to sharing a positive association with overall psychological distress, the SBWS shares a positive relationship with all three of the subscales- depression ($M= 6.64$, $SD= 5.03$; $r(175)=.51$, $p<.001$), anxiety ($M= 5.93$, $SD= 4.16$; $r(175)=.41$, $p<.001$), and stress ($M= 8.75$, $SD= 4.63$; $r(175) =.54$, $p<.001$). Therefore, researchers found that higher scores on the SBWS scale are associated with higher scores the DASS-21 (psychological distress), and each of its three subscales.

Researchers also hypothesized that higher scores on the SBWS scale will correlate with higher scores on the CD-RISC, measuring resilience. It was found that the SBWS shares no relationship with resilience ($M=70.58$, $SD= 13.55$; $r(175)=.08$, $p=.31$). Lastly, researchers predicted that the SBWS and suicidal behaviors would share a relationship, though there was no prediction as to the direction of this relationship. Researchers found that higher scores on the SBWS scale were associated with higher scores on the SBQ-R ($M=6.39$, $SD= 3.38$; $r(175)=.36$, $p<.001$). In addition to the main results, researchers also found that the SBWS shares a negative relationship with GPA ($M=3.23$, $SD=.48$; $r(175)= -.18$, $p<.05$). There were also many correlations between

the scales used to measure mental health. The remaining correlations are seen in Table 1 (see appendix D).

It was also hypothesized that resilience would serve as a moderating variable to the relationship between psychological distress and suicidal behaviors. Specifically, researchers predicted that higher levels of resilience would weaken the relationship between psychological distress and suicidal behaviors. In order to investigate this, researchers performed a moderated multiple regression analysis. In order to test for moderation, we examined a model with resilience and psychological distress' effects on suicidal behaviors. We then compared it to the interaction model (Resilience*Psychological Distress) and observed whether there was a significant interaction effect. Moderation would indicate a significant change in the R²% between the interaction model and the main effects model, with the interaction model and term being significant. Researchers found a significant interaction between resilience and psychological distress on suicidal behaviors, indicating a moderating effect of resilience on the relationship between psychological distress and suicidal behaviors (see Table 2 in appendix D and Figure 1). However, it is important to note that this interaction effect was not found in the dataset that did not use data imputation (N=145) ($\beta = -.11$, $t(141) = -1.63$, $p = .10$).

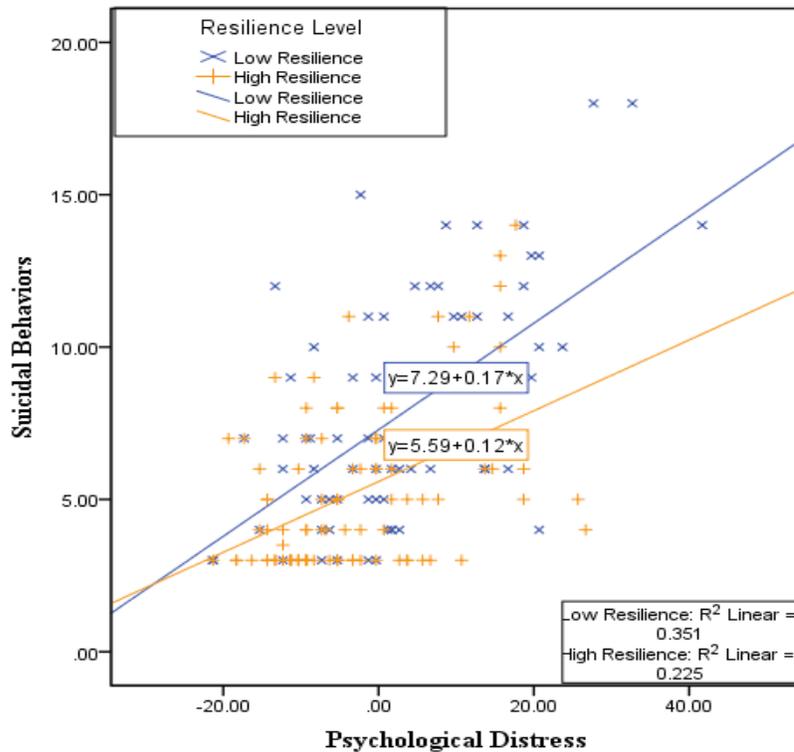


Figure 1. Effects of Resilience on Psychological Distress-Suicidal Behaviors Relationship

On the other hand, researchers also predicted that the SBWS would moderate (weaken) the relationship between psychological distress and suicidal behaviors. The same procedures used to examine the resilience moderation was used to examine the moderating effects of the SBWS on the existing psychological distress-suicidal behaviors relationship. Researchers tested for the SBWS moderation in a model separate from the resilience moderation. When examining the moderating effects of the SBWS on the existing psychological distress-suicidal behaviors relationship, researchers did not find a significant interaction effect, indicating no moderation ($\beta = .07, t(173) = 1.03, p = .30$). However, though it was not hypothesized, researchers did find a mediating effect of psychological distress on the relationship between the SBWS and suicidal behaviors (see Table 3 in appendix D). Researchers then combined the models and found an

overall moderated mediation (see Table 4 in appendix D). In this model, the SBWS' effect on suicidal behaviors is only partially mediated by psychological distress.

A moderated multiple regression analysis was also conducted to examine the moderating effects of SES on the relationship between the SBWS and psychological distress. Researchers predicted that higher levels of socioeconomic status would weaken the relationship between the SBWS and psychological distress. Researchers transformed SES into a dummy variable by using "1" as mid/high SES and "0" as not mid/high SES, aka low/mid SES. Researchers expected to find a stronger linear relationship between the SBWS and psychological distress in the low/middle SES group than the middle/high SES group. To run the analysis, researchers examined the interaction effect between SES and the SBWS on suicidal behaviors. The interaction term did not prove to be significant and researchers found that SES did not have any moderating effects on the relationship between the SBWS and psychological distress ($\beta = .02$, $t(156) = .30$, $p = .77$).

DISCUSSION

In the present study, researchers sought to determine the relationship between the Strong Black Woman Schema (SBWS) and mental health. Researchers predicted that the SBWS would yield both positive and negative impacts on mental health. Specifically, researchers predicted that the resilience levels would increase as levels of SBWS endorsement increases. This relationship was not found to be true as there was no significant relationship between the SBWS and resilience. The researchers also predicted that psychological distress, including depression, stress, and anxiety, would increase as endorsement of the SBWS increases. It was found that stronger levels of SBWS endorsement do correspond to stronger levels of overall psychological distress and each of its subscales- depression, stress, and anxiety. Due to the potential psychological benefits and disadvantages of the SBWS, researchers predicted that the SBWS would share a relationship with suicidal behaviors but there was no prediction as to the direction of this relationship. Researchers did in fact find a positive relationship between the SBWS and suicidal behaviors, indicating that as endorsement of the SBWS increases, suicidal behaviors increase.

The researchers also had several hypotheses predicting the conditional relationships between the SBWS, resilience, and mental health. Consistent with previous literature on resilience, researchers predicted that resilience would moderate the existing relationship between psychological distress and suicidal behaviors. This was found to be supported since as resilience increases, the relationship between psychological distress and suicidal behaviors weakens. Though there is still a relationship between psychological distress and suicidal behaviors at all

levels of resilience, individuals that possess higher levels of trait resilience are less likely to engage in suicidal behaviors when experiencing psychological distress, compared to individuals with lower levels of trait resilience. This is partially shown by the inverse relationship between individual levels of resilience and psychological distress, depression, and suicidal behaviors. Thus, this supports the buffering hypothesis that resilience serves as a protective factor against suicidal behaviors for both those that are experiencing psychological distress and those that are not. This is the first study to show how resilience moderates the psychological distress-suicidal behaviors relationship in black women.

Researchers predicted that the SBWS would also weaken the relationship between psychological distress and suicidal behaviors, similar to resilience. This prediction arrived from the idea that the SBWS would have positive benefits by giving black women strength and tenacity to successfully deal with mental disorders. However, just as the SBWS was not shown to share any relationship with resilience, levels of SBWS endorsement did not have any effect on the relationship between psychological distress and suicidal behaviors. In fact, the SBWS seems to have harmful effects on suicidal behaviors as since previously discussed, the SBWS is associated with higher levels of suicidal behaviors. The SBWS is also harmful from an academic standpoint as researchers found an inverse relationship between endorsement of the SBWS and GPA (grade point average). These results indicate that the SBWS may serve to inhibit black college women from succeeding academically. Future research should aim to identify the mechanism by which the SBWS affects academic performance.

Further, though researchers did not predict any mediation hypotheses, researchers found that the positive relationship between the SBWS and suicidal behaviors is partially mediated by

psychological distress within the moderated mediation model. This indicates that psychological distress partially accounts for the relationship between the SBWS and suicidal behaviors. Thus, psychological distress is a strong factor in the relationship between the SBWS and suicidal behaviors. Researchers theorize that the suicidal behaviors that Strong Black Women (SBW) experience are primarily a result of the psychological distress that the SBWS produces.

Lastly, researchers predicted that socioeconomic status (SES) would have some bearing on the SBWS and its relations with mental health. Though previous research has found that endorsement of the SBWS is not directly tied to SES, researchers predicted that socioeconomic status would moderate, specifically weaken, the relationship between the SBWS and psychological distress. This prediction was based on the John Henryism Hypothesis (JHH) that stated that John Henryism (JH; a similar high-effort coping style), is associated with negative health outcomes and it is moderated by SES (James, 1994). Specifically, the JHH states that people who engage in JH from low SES backgrounds will find JH more distressing due to a lack of resources to use that coping style to their advantage, compared to people who engage in JH from higher SES backgrounds. The JHH has been proven several times before. In this study, researchers predicted a similar effect in that endorsement of the SBWS would be significantly more distressing to individuals from a low/middle SES background compared to a middle/high SES background. Researchers did not find any significant effect of SES on the relationship between the SBWS and psychological distress, nor did researchers find any direct relationship between SES and the SBWS. Thus, it seems that SES has no effect on the SBWS or its resulting effects, indicating that the SBWS is endorsed by and affects black women from all socioeconomic backgrounds equally. These results may be explained by the fact that though the

JHH has consistently explained health disorders, the JHH has not been proven true when it comes to mental health. In fact, a study done in 2009 shows this as researchers actually found JH to relate to positive mental health and did not find any relationship between JH socioeconomic status and mental health (Kiecolt, Hughes, & Keith, 2009). This may also be explained by the fact that though JH is similar to the SBWS in its coping style, the two are still distinct constructs.

Overall, these results do indicate that as far as researchers know, the SBWS is associated with psychological harm and does not appear to have any positive psychological benefits. Previous qualitative research has recorded black women acknowledging the psychological necessity of the SBWS (Etowa et al., 2017; Nelson et al., 2016). Many black woman have stated that the SBWS gives them the strength to deal with the unique and shared challenges that they face (Abrams et al., 2014; Nelson et al., 2016). Previous qualitative studies have also identified qualities such as strength, a positive self-concept, and resilience as integral to the SBWS trope (Abrams et al., 2014). While qualitative results show mixed perceptions to the nature of the SBWS, quantitative results have revealed that the SBWS is indeed harmful to mental health. Thus, it is surprising, and perhaps even alarming that though black women say that they feel ambivalent about the nature of the SBWS, the data reveals otherwise. Though the results regarding the relationship between resilience and the SBWS counter our original hypothesis and some qualitative research, they are supported by previous quantitative literature on the SBWS. There is no current evidence to indicate that the SBWS has any positive effects on mental health, as researchers have only found that the SBWS is associated with psychopathology.

It is possible that there may be a certain level of cognitive dissonance involved with perceptions of the SBWS. Since the SBWS is a cultural expectation placed on black women,

which was meant to be a positive representation of black women, black women may feel that they must endorse *and* justify the SBWS. This dissonance, along with the socialization of the SBWS may be the reason as to why black women feel that the SBWS is necessary, when the evidence does not support this. Future research should look more into identifying the causes of different perceptions of the SBWS.

While the evidence does not support the idea that the SBWS provides black women with the resilience to deal with potential mental disorders, the SBWS may increase the risk of black women developing mental disorders. This study supported the idea that SBWS is associated with psychological distress, including depression, anxiety, and stress (Abrams, Hill, & Maxwell, 2018; Abrams et al., 2014; Donovan & West, 2015; Etowa et al., 2017; Watson & Hunter, 2015). It also looked into a new relationship and is the first to find that stronger endorsement of the SBWS is associated with higher levels of suicidal behaviors. Thus, the SBWS may be a cultural risk factor for suicidal behaviors in black women. Moreover, in addition to being more prone to developing mental disorders, endorsement of the SBWS demands that black women suppress their own emotions and avoid mental health treatment (Watson & Hunter, 2015). Thus, the evidence supports that the SBWS increases mental disorders, does not guard against these disorders, and prevents black women from seeking out mental health treatment. These results challenge the notion that the SBWS is integral to black women's survival and serves to benefit black women in dealing with their struggles.

Limitations

There are several limitations to consider when interpreting the results of this study. The first limitation lies in the level of generalizability of our results. In this study, researchers aimed to examine specifically how the SBWS affects black women from a young adult sample (18-25 y/o). Thus, though previous literature seems to support the idea that it is likely that these results span across a wide range of black women, future studies would have to sample black women of all ages in order to determine if the relationship between the SBWS and suicidal behaviors will remain the same. Also, though the study intended to collect results from both a community sample and college-student sample through varied recruitment methods, it was found that the vast majority of the sample was current college students. Thus, these results can truly only be generalized to college-attending black women.

Another limitation to the study lies in the reliability of our data due to data imputation. Though it was preferable to use data imputation over deletion in order to achieve power, data imputation did bring its own limitation. By inputting data, researchers assumed that the data was missing at random. This was due to the fact that no single variable was missing many responses as the missing responses were equally distributed across the variables within the measures. However, researchers did not do any statistical analysis to determine if the data was truly missing at random. Thus, it could be possible that some of the data was missing due to respondent fatigue. Also, though data imputation is a valid method, the resulting data points are still an estimation of the potential data points. This estimation is based off of the data points surrounding the participant's missing response. Thus, if the true participant response would have been dissimilar to the data surrounding the missing response, researchers would not be able to detect the difference.

Also, due to the difference in data imputation, researchers noticed a difference in results for the moderating effects of resilience on the relationship between psychological distress and suicidal behaviors. Though the unaltered data was only marginally significant, the imputed data showed that resilience moderated the relationship between psychological distress and suicidal behaviors at the $p=.05$ level. Thus, researchers must question if the data imputation produced unrealistic data points that altered the results. However, it is possible that it was the increase in sample size ($N= 145$ to $N=177$) which increased the statistical power and thus, the statistical significance. Therefore, future studies should aim to replicate these results and survey from a larger sample size in order to account for missing data values. Still, though the data imputation causes us to question the moderating effects of resilience, this is the only result that should be questioned because of this. In fact, all of the other results still proved to be significant in the unaltered data. Considering that the unaltered data set did not reach statistical power to detect medium effect sizes, this shows the true significance of our results, since effects are seen at a power level intended to only detect large effect sizes.

Moreover, researchers were not able to use data interpolation to fill in missing data values measuring SES considering that there was only a single variable to measure SES (Pell Grant eligibility or free/reduced lunch eligibility). Though power was achieved for many of our main analyses, researchers did not reach the suggested sample size of 177 to be able to detect medium effect sizes for analyses involving SES. Thus, though we did find significant results supporting SES' moderation of the relationship between the SBWS and psychological distress, it is possible that the results should have shown even greater significance as indicated with a greater coefficient of determination value. Though this serves as a limitation in detecting even

smaller effect sizes, the fact that SES' moderation was shown to be significant at a large effect size level indicates that these results are very significant and should be examined further.

There are also limitations with some of the measures used. In this study, researchers used Pell Grant eligibility and free/reduced lunch eligibility as measures of socioeconomic status. Socioeconomic status is defined as a combination of income, occupation, and education level. Since the sample primarily targeted young adults, most of the women would be dependent on their parent's income (Xiao, Chatterjee, & Kim, 2014). Thus, we sought to use measures that typically are used to distinguish low and high SES students. Still, these measures are very limited. Though Pell Grant eligibility uses a range of factors to determine low-income status, the range is still limited. The federal guidelines for free and reduced lunch are even more limited as it only uses poverty level which is simply composed of income level and household size. These limitations of measuring SES may lend to the reason why no significant moderation effects were found. Future studies should examine how SES relates to the SBWS by using more valid measures of SES.

Lastly, the SBWS has only recently been studied quantitatively. Thus, a highly validated measure of the SBWS does not yet exist. Researchers chose to use the mammy and superwoman scale from the Stereotypic Roles for Black Women Scale since it has been one of the most frequently-used scales to measure the SBWS. This study and previous studies utilizing this scale have held it to be reliable. Still, future studies should focus on validating existing measures and developing more valid measures of the SBWS.

Implications

The implications of these results are significant from both a community perspective and a mental health perspective. As stated before, the SBWS is seen all throughout media and is often portrayed in a positive light (Black & Peacock, 2011; Stanton et al., 2017). Further, the SBWS is also highly endorsed within the socialization of young black girls within the home (Woods-Giscombé, 2010). People view the SBW as independent, confident, and self-sufficient (Abrams et al., 2014). While it is still possible that those things may be true, portrayals of the SBWS should stop glamorizing the SBW and reveal the reality of the distress and struggle that the SBWS may cause. Further, as seen within our data, not every black woman endorses the SBWS. Thus, media portrayals that show a wider range of representations of black women will not only serve to be more inclusive but will also reduce the levels of distress that many black women may feel from the expectation to be “strong”.

Advocates within the black community should focus on mitigating the negative mental and academic effects of the SBWS by addressing the distress that it causes and working to break down this restrictive expectation. Further, many black women still hold on to the SBWS due to its perceived necessity in helping black women deal with their struggles. Thus, it may be preferable for the black community to advocate for a shift in meaning of the “strong black woman” rather than completely abandon it.

These results also bear important implications for mental health professionals. Black women are among the groups least likely to seek out mental health treatment (Williams et al., 2007). Even worse, black women tend to suffer from more impairment due to mental disorders. It has been proposed that the SBWS may be a factor in black women’s low mental health seeking propensity. Researchers have even found that the SBWS directly relates to black women’s

attitudes towards mental health treatment (Watson & Hunter, 2015). As the present study has revealed that the SBWS has far reaching negative mental health implications, it is important to note that the SBWS not only prevents black women from seeking treatment but also may be the initial cause of psychological distress, as seen through depression, anxiety, stress, and suicidal behaviors. Thus, mental health advocates and therapists should focus on reducing the stigma against mental health treatment that the SBWS causes, as well as the distress that the schema itself may cause.

Moreover, it is important that mental health professionals begin to consider the SBWS in developing culturally competent mental health treatment for black women. When black women finally do decide to seek out mental health treatment, they often experience cultural barriers that prevent these women from connecting with their therapist. As a result, black women have very low treatment retention rates. That is why, it is important to focus on exactly how the SBWS may result in mental disorders through negative coping styles such as a self-silencing, emotional avoidance, and minimization that is central to the schema. Without addressing larger cultural factors that may be causing these negative cognitions and behaviors, it may be difficult for black women to achieve transference with their therapist and make significant progress by dealing with the root causes. Future studies should focus on developing new culturally-competent treatment programs and modifying existing treatment programs that take the SBWS and its implications into account. Future studies could also focus on integrating these treatments into community-based populations. Future research could also examine the SBWS from a developmental standpoint by examining the age at which the SBWS begins to manifest and the age at which it becomes distressing.

APPENDIX A: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1
FWA00000351, IRB00001138**

To: **Grace A. White and Co-PI: Stephanie Castelin**

Date: **October 16, 2018**

Dear Researcher:

On 10/16/2018 the IRB approved the following human participant research until 10/15/2019 inclusive:

Type of Review: UCF Initial Review Submission Form
Expedited Review Category #7

Project Title: "I'm a Strong Independent Black Woman": The Cost of
Strong Black Woman Schema Endorsement

Investigator: Grace A White
IRB Number: SBE-18-14422

Funding Agency:
Grant Title:
Research ID: N/A

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 10/15/2019, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

All data, including signed consent forms if applicable, must be retained and secured per protocol for a minimum of five years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained and secured per protocol. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

This letter is signed by:

A handwritten signature in black ink, appearing to read "Gillian Morien". The signature is fluid and cursive, with a prominent initial "G" and a long, sweeping tail.

Signature applied by Gillian Morien on 10/16/2018 12:16:18 PM EDT

Designated Reviewer

APPENDIX B: RECRUITMENT FLYER



VOLUNTEERS NEEDED FOR RESEARCH STUDY

"I'M A STRONG INDEPENDENT BLACK WOMAN": THE COST OF STRONG
BLACK WOMAN SCHEMA ENDORSEMENT

Researchers are seeking **black women** (any ethnicity and nationality) between the ages of **18 and 25** to participate in a research study!

- You will take a 30 minute survey investigating the effects of the "strong black woman schema" on resilience, psychological distress, and suicidal behaviors.
- Participants signed up through SONA will receive 0.25 SONA credit.

SIGN UP THROUGH UCF'S SONA SYSTEM

OR AT

http://ucf.qualtrics.com/jfe/form/SV_6RNSbGQenrxgIFD

PLEASE CONTACT DR. GRACE WHITE AT GRACE.WHITE@UCF.EDU
FOR MORE INFORMATION
UNIVERSITY OF CENTRAL FLORIDA- DEPARTMENT OF PSYCHOLOGY

APPENDIX C: RECRUITMENT EMAIL

Subject: Research Study Opportunity: Strong Black Woman Schema

Hello,

My name is Stephanie Castelin and I am working on my Honors in the Major thesis under the supervision of Dr. Grace White at the University of Central Florida. I am conducting a research study investigating the effects of the “strong black woman schema” (Watson & Hunter, 2015) on resilience, psychological distress, and suicidal behaviors. This study is specifically looking at black women (of any nationality or ethnicity) between the ages of 18 and 25 years old. I am emailing to ask if you would like to take about 30 minutes to complete a survey for this research project. Participation is completely voluntary, and your answers will be kept anonymous.

If you are a black woman (of any nationality or ethnicity) between the ages of 18 and 25 years old and would like to volunteer to participate in this study, please click the link for the survey and additional information:

https://ucf.qualtrics.com/jfe/form/SV_6RNSbGQenrxgIFD

If you are UCF student interested in participating and have a SONA account in which you are eligible to receive course/extra credit, you may sign up through SONA your responses will be kept confidential. If you do not wish to participate but still want extra credit/course credit in an eligible course, please follow your faculty’s instructions for completing the alternative assignment. To sign up for the study through SONA, please login to SONA and sign up for the study entitled:

““I’m a Strong Independent Black Woman”: The Cost of Strong Black Woman Schema Endorsement.”

If you have any questions or concerns about the study itself, please do not hesitate to contact me at castelin@knights.ucf.edu or Dr. White, faculty supervisor at (321) 682-4299 or by email at grace.white@ucf.edu.

You are receiving this email due to your affiliation with <insert organization here>. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

Thank you for your time and consideration,

Stephanie Castelin

APPENDIX D: TABLES

Table D1.

Bivariate Correlation Matrix Between the Strong Black Woman Schema, Indicators of Mental Health, GPA, and Age (N=177)

Scale	1	2	3	4	5	6	7	8	9
1. SBWS	---								
2. CDRISC	.08	---							
3. Depression	.51**	-.40**	----						
4. Anxiety	.41**	.14	.54**	----					
5. Stress	.54**	-.07	.66**	.62**	----				
6. DASS-21	.57**	-.25**	.87**	.82**	.89**	----			
7. SBQ-R	.36**	-.38**	.61**	.41**	.45**	.58**	----		
8. GPA	-.18*	-.03	-.06	-.16*	-.14	-.14	-.01	----	
9. Age	.04	-.02	.007	.07	.10	.07	-.10	-.15*	----

Note. Significant correlations are highlighted. * $p < .05$, 2-tailed. ** $p < .01$, 2-tailed. Depression, Anxiety, and Stress scales are all subscales of the DASS-21 scale. SBWS= Strong Black Woman Schema Scale; CDRISC= Connor-Davidson Resilience Scale; DASS-21= Depression, Anxiety, and Stress Scales (psychological distress); SBQ-R= Suicidal Behaviors Questionnaire- Revised.

Table D2.

Moderated Multiple Regression Model for Effects of Resilience and Psychological Distress on Suicidal behaviors, as Compared to the Interaction Model (N=177)

	Model 1				Model 2			
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Resilience	-.07.	.02	-.27	<.01	-.06	.02	-.25	<.01
Psychological Distress	.14	.02	.51	<.01	.14	.02	.49	<.01
Resilience*Psychological Distress	-	-	-	-	-.002	.01	-.13	.03
R^2	.400				.417			
Sig. F for $R^2\Delta$	<.001				.027			

Table D3.

Mediated Multiple Regression Model for Effects of the Strong Black Woman Schema and Psychological Distress on Suicidal Behaviors (N=177)

	Model 1				Model 2			
	<i>B</i>	<i>SE B</i>	β	<i>p</i>	<i>B</i>	<i>SE B</i>	β	<i>p</i>
SBWS	.82	.09	.57	<.01	.02	.03	.05	.51
Psychological Distress	-	-	-	-	.16	.02	.55	<.01
R ²	.131				.333			
Sig. F for R ² Δ	<.001				<.001			

Table D4.

Moderated Mediation of the SBWS, Psychological Distress, and Resilience on Suicidal Behaviors

	<i>B</i>	<i>SE B</i>	β	<i>p</i>
SBWS	.06	.03	.15	.04
Psychological Distress	.11	.02	.40	<.001
Resilience	-.07	.02	-.28	<.001
Resilience*Psychological Distress	-.01	.01	-.13	.03
R ²			.430	

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